'Ochlockonee' Rabbiteye Blueberry

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'Ochlockonee' (ok-LAHK-uh-nee) is a rabbiteye blueberry (*Vaccinium ashei* Reade) jointly released by the Univ. of Georgia College of Agricultural and Environmental Sciences, Univ. of Georgia Agricultural Experiment Station, and the U.S. Dept. of Agriculture-Agricultural Research Service. Named after the Ochlockonee River in south Georgia, 'Ochlockonee's primary attribute is that it ripens late in the rabbiteye season with 'Tifblue', yet yields and berry size have been

superior to those of 'Tifblue' in south Georgia. 'Ochlockonee' berries are medium- to large-sized, of high quality, and can be mechanically harvested.

Origin

'Ochlockonee' was selected in the mid 1960s at the Coastal Plain Experiment Station in Tifton, Ga., from a cross of 'Tifblue' × 'Menditoo', and was tested as selection T-105 (Austin, 1994; Brightwell, 1963; Brooks, 1970). A schematic diagram of the pedigree of 'Ochlockonee' is shown in Fig. 1. The selec-

Fig. 1. Pedigree of 'Ochlockonee' rabbiteye blueberry.

Table 1. Yield data of 'Ochlockonee' and 'Tifblue' rabbiteye blueberries. Data are from single bush, replicated plots at Alapaha, Ga. Plants of each blueberry line were established in 1986. Yields are total fruit weight from multiple harvests.

Year	Selection		Significance ^z
	Ochlockonee	Tifblue	
	----- kg/bush -----		
1998	6.6	2.9	*
1999 ^y	2.4	1.4	NS
2000	12.0	8.0	*
2001	8.0	7.6	NS
2002	9.5	3.0	*
5-year avg	7.7	4.6	

^zMeans were significantly different at the 5% probability level (*), or not significantly different (NS) as determined by Fisher's least significant difference tests.

^yFlower thrips during 1999 caused low yields on late blooming selections and cultivars.

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tion was evaluated for several years during the 1970s, but was not released. In the late 1980s, the selection was revived for testing as a release and was planted anew with 'Tifblue' at the Univ. of Georgia's Blueberry Research Farm near Alapaha. Resulting data from several years indicate that 'Ochlockonee' is high yielding and should be adapted to areas conducive to rabbiteye blueberry production.

Description and Performance

'Ochlockonee' has been primarily compared with the late season rabbiteye standard 'Tifblue'. In Alapaha, Ga., productivity of 'Ochlockonee' substantially exceeded that of 'Tifblue' in three out of the past five years for plants that were established in 1986 (Table 1). In fact, the 5-year average yield for 'Tifblue' in south Georgia was only 59% of that of 'Ochlockonee'. In addition to high yield, 'Ochlockonee' had greater berry weight than 'Tifblue', especially for first harvest berries (Table 2). These two properties alone make this selection desirable as a highly productive, late-season rabbiteye cultivar.

Other attributes, such as berry scar, berry color, berry firmness, plant vigor, etc., for 'Ochlockonee' are comparable to 'Tifblue' (Table 3). 'Ochlockonee' generally ripens a few days later than 'Tifblue', while bloom dates are similar, a trait favorable for escaping spring freeze damage in the south Georgia area (Table 4). The estimated chill requirement of the new

Table 2. Berry size (weight per 100) for 'Ochlockonee' and 'Tifblue' rabbiteye blueberries at the first and second harvest for 5 years at Alapaha, Ga. Data are from single bush, replicated plots. Plants of each blueberry line were established in 1986.

Year	Selection		Significance ^z
	Ochlockonee	Tifblue	
	---- g/100 berries ----		
	First harvest berries		
1998	110.0	87.0	*
1999	148.2	106.5	*
2000	146.3	111.7	*
2001	170.3	126.7	*
2002	127.3	79.6	*
5-year avg	140.0	102.0	
	Second harvest berries		
1998	100.0	75.0	*
1999	134.0	100.3	*
2000	96.6	91.4	NS
2001	123.3	91.4	*
2002	103.0	---	---
5-year avg	111.0	89.0	

^zMeans were significantly different at the 5% probability level (*), or not significantly different (NS) as determined by Fisher's least significant difference tests.

Table 3. Ratings of fruit (berry) and plant attributes of 'Ochlockonee' and 'Tifblue' rabbiteye blueberries. Data are averages for a 5-year period from replicated plots at Alapaha, Ga. Ratings are on a scale of 1 = poorest to 10 = best, with a value of 7 generally considered "commercially acceptable." Plants of each blueberry line were established in 1986.

Berry/plant attribute	Selection		Significance ^z
	Ochlockonee	Tifblue	
Berry scar	8.0	8.2	NS
Berry color	8.2	8.7	NS
Berry firmness	7.7	7.9	NS
Berry flavor	7.7	7.4	NS
Plant vigor	9.2	8.8	NS

^zMeans were significantly different at the 5% probability level (*), or not significantly different (NS) as determined by Fisher's least significant difference tests.

Table 4. Chill hours, bloom dates and ripening dates of 'Ochlockonee' and 'Tifblue' rabbiteye blueberries. Data are from replicated plots at Alapaha, Ga. Plants of each blueberry line were established in 1986. Dates are estimates of 50% bloom and ripening.

Year	Chill hours ^z	Selection			
		Ochlockonee	Tifblue	Ochlockonee	Tifblue
		---Date of 50% bloom---		-- Date of 50% ripening --	
1998	620	29 Mar.	28 Mar.	1 July	26 June
1999	363	4 Apr.	30 Mar.	26 June	22 June
2000	697	24 Mar.	20 Mar.	30 June	18 June
2001	916	14 Mar.	11 Mar.	30 June	23 June
2002	574	31 Mar.	26 Mar.	20 June	19 June
5-year avg ^y	634	27 Mar. a	23 Mar. a	28 June b	22 June a

^zChill hours are hours below 7 °C for the period from 1 Oct. through 15 Feb. Data were from the Tifton weather station.

^yThe same lower case letter indicates the dates for the 5-year average were not significantly different at the 5% probability level for bloom time and ripening time as determined by Fisher's least significant difference tests.

Table 5. Ratings of fruit (berry) and plant attributes of ‘Ochlockonee’ and ‘Tifblue’ rabbiteye blueberries at Griffin, Ga., for 2002. Ratings are on a scale of 1 = poorest to 10 = best, with a value of 7 generally considered “commercially acceptable.” Plants of both blueberry lines were established at the site in 2000.

Berry/plant attribute	Selection		Significance ^{2/}
	Ochlockonee	Tifblue	
Berry size	7.0	6.2	NS
Berry scar	8.5	8.5	NS
Berry color	8.5	8.5	NS
Berry firmness	8.5	8.2	NS
Berry flavor	8.0	7.5	NS
Plant vigor	8.5	7.8	NS
Crop load	9.0	6.5	*
Ripening date	2 July	26 June	*

^{2/}Means were significantly different at the 5% probability level (*), or not significantly different (NS) as determined by Fisher’s least significant difference tests.

release is 650 h, which is slightly higher than ‘Tifblue’ (NeSmith and Bridges, 1992).

As for adaptation to other areas, ‘Ochlockonee’ plants set in 2000 at Griffin, Ga., equaled ‘Tifblue’ in most attributes in 2002, except

for crop load, which was greater for ‘Ochlockonee’, and ripening date, which was later for the new cultivar (Table 5). Also, in Stone County, Miss., ‘Ochlockonee’ and ‘Tifblue’ were equal in plant vigor for 2-year-old plants evaluated in 2002 (data not shown). The bush of the new cultivar is likely very “durable,” since a planting of ‘Ochlockonee’ at Alapaha, Ga., that is more than 25 years old is still quite vigorous and productive.

The bush of ‘Ochlockonee’ is vigorous and upright, with a fairly narrow crown. Plants produce an abundance of fruiting wood each year, with only moderate cane growth. Some stem disease lesions (*Gloeosporium minus* and/or *Septoria albopunctata*) have been observed on an older planting of ‘Ochlockonee’ in south Georgia, but they have caused no serious production problems. ‘Ochlockonee’ is easily propagated from softwood cuttings.

As with most rabbiteye blueberry cultivars, it is recommended that ‘Ochlockonee’ be planted with another rabbiteye cultivar with a similar bloom time for cross-pollination. In south Georgia, it is likely that the cultivars Brightwell and Powderblue would be suitable pollinizers for ‘Ochlockonee’.

Availability

A U.S. Plant Patent for ‘Ochlockonee’ has been applied for on behalf of the Univ. of Georgia Research Foundation. Contact the Georgia Seed Development Commission, 2420 S. Milledge Ave., Athens, GA 30606, for information on plant source and availability. Neither the Georgia Agricultural Experiment Station nor the USDA–ARS have plants for sale or distribution.

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